

# Curriculum Vitae

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*Toufik ZIAR*

## Professional address

Matter Sciences Department, Exact sciences and life sciences Faculty. Larbi Ben M'hide  
University of Oum El Bouaghi 04000, Algeria.

## Personal Data

Birthdate: April 02, 1970, Oum El Bouaghi, Algeria.

Married (one child).

Home Address: Mustafa Benboulaid City N°1263 , Oum El Bouaghi, 04000, Algeria.

**Telephone:** (213) 0662 58 44 66

**Email Address:** ziar.toufik@univ-ueb.dz

toufik1\_ziar@yahoo.fr

## Pr Toufik ZIAR IDs

- ❖ <https://orcid.org/0000-0002-6476-2288>
- ❖ Researcher ID: T-7314-2017
- ❖ Scopus Author ID: 55331769500

## Profiles

- ❖ <https://scholar.google.fr/citations?user=9Pgbd10AAAAJ&hl=fr>
- ❖ [https://www.researchgate.net/profile/Toufik\\_Ziar](https://www.researchgate.net/profile/Toufik_Ziar)
- ❖ <https://www.semanticscholar.org/author/T.-Ziar/23207977>

## Education

- Bacalaureat. (mathematical techniques), Zerdani Belkacem technical college, Oum El Bouaghi, Algeria., June 1988
- Engineer graduate studies (Electronics-Communication) Mentouri university of Constantine , Algeria, June1994

# Curriculum Vitae

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- Magister Postgraduate studies (Condensed Matter Physic) Larbi Ben M'hidi University center of Oum El Bouaghi, Algeria , June 2008
- Ph.D. ( Physic of semi conductors) Larbi Ben M'hidi University of Oum El Bouaghi, Algeria , March 2013.
- Habilitation (Physics) Larbi Tebessi University of Tebessa, December 15, 2016.
- Professor (Full) Larbi Tebessi University of Tebessa, July 12, 2021.
- Professor (Full) Larbi Ben M'hidi University of Oum El Bouaghi, since November, 2022.

## Advisors

*Graduate studies:* Late Pr Marir Badreddine ( Mentouri Constantine)

*Doctoral & Postdoctorate studies :* Late Pr Henri Baudrand (LAPLACE Toulouse France),  
Pr Azizi Cherifa ( Larbi Ben M'hidi University of Oum El Bouaghi, Algeria).

## Professional

- ✓ Contract Professor, Larbi Tebessi National institute specializing in professional training, Oum El Bouaghi, 1994-1996
- ✓ Military service 1996-1998
- ✓ Principal Professor, SAHEL technical college, Oum El Bouaghi, 2002-2013.
- ✓ Maitre assistant B stagiaire, Larbi Tebessi University of Tebessa, 2013-2014.
- ✓ Maitre de conference B, Larbi Tebessi University of Tebessa, 2014-2016.
- ✓ Maitre de conference A, Larbi Tebessi of Tebessa, 2016-20211
- ✓ Professeur de l'enseignement supérieur, Larbi Tebessi University of Tebessa since July 2021

## Teaching Activities

- **Teaching in secondary (college)**

Technical Colleges were a great experience for me, even if it was sometimes difficult. I highly recommend it. We come out "armored" and stronger. I taught the following courses between the years 2002 and 2013:

- Electrical engineering for the second year and terminal levels in Electrical Engineering specialty.
- electricity for the Mechanical specialty
- Computer initiation for 1st year levels.

# Curriculum Vitae

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- Electrical engineering for the terminal level electrical engineering specialty

- **Teaching in Universities.**

I started my teaching at Larbi Ben M'hidi University in Oum El Bouaghi with vacations in 2007, then as a lecturer, after a year of training, at Larbi Tebessi University of Tebessa in 2013. Following the changes that have occurred with the LMD reform (academic year 2004-2005), my courses have continued to change between the classic system and the LMD system.

- “*Numerical physics and data analysis*”. For the 3rd year students of the radiation physics specialty (LMD). Exact sciences and Nature and Life Sciences Faculty Larbi Tebessi University of Tebessa.
- 2. “*Numerical analysis*”. For the 3rd year students of the material physics specialty (LMD). Exact sciences and Nature and Life Sciences Faculty Larbi Tebessi University of Tebessa.
- 3. “*Instrumentation*”. For the 3rd year students of the radiation physics specialty (LMD) Exact sciences and Nature and Life Sciences Faculty Larbi Tebessi University of Tebessa.
- 4. “*Vibrations and waves*”. For the 2<sup>nd</sup> year students of the Mines Engineering specialty (LMD). Sciences and Technology Faculty, Larbi Tebessi University of Tebessa.
- 5. “*Initiation to bibliographic research*”. For the 1st year students of the Master material physics specialty (LMD). Exact sciences and Nature and Life Sciences Faculty Larbi Tebessi University of Tebessa.
- 6. “*Physical laboratory 01*”. For the 1st year students of the common section of the material sciences field (LMD). Exact sciences and Nature and Life Sciences Faculty Larbi Tebessi University of Tebessa.
- 3. “*Transmission channels and optical components*”. For the 1st year students of the Master Networks and telecommunications Specialty (LMD). Sciences and Technology Faculty, Larbi Tebessi University of Tebessa.
- 4. “*Biological effects of radiations*”. For the 3rd year students of the radiation physics specialty (LMD). Exact sciences and Nature and Life Sciences Faculty Larbi Tebessi University of Tebessa.

# Curriculum Vitae

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## Area of Specialization

- Modeling and characterization of semi conductor devices.
- Chaos in electronic circuits and synchronization of chaotic signals.
- Characterization and micro structural study of thin films and Aluminum alloys heat treated.

## PhD Students

1. Badreddine ZEMMAL “ *Modelisation et caracterisation des metamateriaux*”, Larbi Tebessi University of Tebessa (2018) ( in progress)
2. Dalila ALLOUANNE “ *Caractérisation des couches minces des oxydes transparents et conducteurs élaborées par spray-CVD* ”, Larbi Tebessi University of Tebessa (2018) ( in progress).
3. Oumaima Cheraitia “ **Optimisation des cellules solaires à base de matériaux pérovskites**”, Larbi Ben M’hidi University of Oum El Bouaghi, Algeria (2023) ( in progress)

## Master Students

1. Mayouf Marwa & Guettal Besma « *Etude des circuits électroniques par des calculs fractionnaires : application à la synchronisation des signaux chaotiques* ». defended on May 23,2017.
2. Sahraoui Cherifa & Hafsa Laila « *Etude comparative de quelques types de synchronisations des systèmes chaotiques* ». defended on May 26,2018.
3. Touaibia Ilhem « *Les métamatériaux : simulation et caractérisation par la méthode itérative WCIP* ». defended on May 26,2018.
4. Berrah Sabrina & Boucetta Dounia « *Etude de la coexistence de quelques types de synchronisation dans les systèmes dynamiques chaotiques*” defended on June 25,2019.
5. Ninouh widad & khouiled Souheila « *La simulation électromagnétique par la méthode itérative basé sur le concept de l’onde (WCIP)* ». defended on June 24,2019.

# Curriculum Vitae

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6. قواسمية وفاء & بوزيان كلثوم "دراسة مقارنة لطرق استخراج الخواص الكهرومغناطيسية للمواد الخارقة". نوقشت في 20/06/2020.
7. قحايرية أسماء & مساعدي مارية "تأثير التصغير على خصائص بعض أنماط المواد الخارقة: دراسة بالمحاكاة" (15/06/2021).
8. Benhizia Salaheddine Ferrak Lotfi « [Modélisation et caractérisation des métasurfaces](#) ». defended on May ,2022.

## Selected Publications

Pr ZIAR has published over 35 publications in professional journals, including book chapters. Below is a *selection of his journal articles, conference papers and book chapters published after the promotion to the grade of lecturer class A (MCA)* (last five years) :

1. Coauthors Issam Hamma , Hichem Farh and others “*Influence of surface recombination and the life time of minority carriers on the characteristics of MESFET (OPFET) GaN*”, Optik.  
2021- | journal-article. DOI: [10.1016/j.ijleo.2021.166479](https://doi.org/10.1016/j.ijleo.2021.166479)
2. Coauthors Abdelouahab NOUA, Meryem GUEMINI and others “*The effect of cold deformation and annealing phenomena on the microstructural changes and microhardness in Al-Mg-Si Aluminum alloys*”, Acta Metallurgica Slovaca .  
2020- | journal-article. DOI: [10.36547/ams.26.3.585](https://doi.org/10.36547/ams.26.3.585)
3. Coauthors Adel Ouannas, Ahmad Taher Azar “*Fractional Inverse Full State Hybrid Projective Synchronization*”, International Journal of Advanced Intelligence Paradigms  
2020 | journal-article. DOI: [10.1504/ijaip.2020.109511](https://doi.org/10.1504/ijaip.2020.109511)
4. Coauthors A. Ouannas , X. Wang and others “ *$A - \varphi$  generalized synchronization: application to fractional hyperchaotic systems with arbitrary dimensions and orders*”, Automatika.  
2020-07 | journal-article. DOI: [10.1080/00051144.2020.1795465](https://doi.org/10.1080/00051144.2020.1795465)
5. Coauthors Issam Hamma , Hichem Farh and others “*Modelisation and Simulation of Cgs.op and Cgd.op Capacities of GaAs MESFETs OPFET*”, Solid State Phenomena.  
2019-09 | journal-article. DOI: [10.4028/www.scientific.net/ssp.297.105](https://doi.org/10.4028/www.scientific.net/ssp.297.105)

# Curriculum Vitae

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6. Coauthors Saida Mellal, Hichem Farh, Khalid Hati and others “*Obtaining Directly Quasi-Square Open Ring FSS Constitutive Effective Parameters by Using Coupled WCIP - Retrieval Method*”, Defect and Diffusion Forum  
2019-09 | journal-article. DOI: [10.4028/www.scientific.net/DDF.397.187](https://doi.org/10.4028/www.scientific.net/DDF.397.187)
7. Coauthors Hichem Farh, Hanna Belghit and others “*The Cold Rolling Effect on the Precipitation Sequence and Microstructural Changes of an Al-Mg-Si Alloy*”, Defect and Diffusion Forum  
2019-09 | journal-article. DOI: [10.4028/www.scientific.net/DDF.397.51](https://doi.org/10.4028/www.scientific.net/DDF.397.51)
8. Coauthors M.C. NEBBAR, M. ZIDANI, T. DJIMAOUI and others “*Microstructural Evolutions and Mechanical Properties of Drawn Medium Carbon Steel Wire*”, International Journal of Engineering Research in Africa.  
2019-02 | journal-article. DOI: [10.4028/www.scientific.net/JERA.41.1](https://doi.org/10.4028/www.scientific.net/JERA.41.1)
9. Coauthors Adel Ouannas and Ahmed Taher Azar “Control of continuous-time chaotic (hyperchaotic) systems: F-M synchronization”, International Journal of Automation and Control  
2019 | journal-article. DOI: [10.1504/IJAAC.2019.098215](https://doi.org/10.1504/IJAAC.2019.098215)
10. Coauthors Hanna Belghit, Hichem Farh and others “*Study of mechanical properties and precipitation reactions in low copper containing Al-Mg-Si*”, Archives of Metallurgy and Materials.  
2018-11-07 | journal-article. DOI: [DOI: 10.24425/amm.2018.125088](https://doi.org/10.24425/amm.2018.125088)
11. Coauthors Hichem Farh , Hanna Belghit and others “*The Cold Rolling Effects on the Microstructure and Micro-Hardness of Al-Mg-Si Alloy*”, Diffusion Foundations.  
2018-09 | journal-article. DOI: [10.4028/www.scientific.net/DF.18.14](https://doi.org/10.4028/www.scientific.net/DF.18.14)
12. Coauthors Adel Ouannas, Giuseppe Grassi and others “*New type of chaos synchronization in discrete-time systems: the F-M synchronization*”, Open Physics.  
2018-04 | journal-article. DOI: [10.1515/phys-2018-0025](https://doi.org/10.1515/phys-2018-0025)
13. Coauthors Adel Ouannas, Xiong Wang and others “*Coexistence of identical synchronization, antiphase synchronization and inverse full state hybrid projective synchronization in different dimensional fractional-order chaotic systems*”, Advances in Difference Equations.  
2018-01 | journal-article. DOI: [10.1186/s13662-018-1485-2](https://doi.org/10.1186/s13662-018-1485-2)

# Curriculum Vitae

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14. Coauthors Adel Ouannas, Giuseppe Grassi and others “*Function-based hybrid synchronization types and their coexistence in non-identical fractional-order chaotic systems*”, Advances in Difference Equations.  
2018 | journal-article. DOI: [10.1186/s13662-018-1772-y](https://doi.org/10.1186/s13662-018-1772-y)
15. Coauthors Adel Ouannas, Viet-Thanh Pham and others “*Q-S chaos synchronization between fractional-order master and integer-order slave systems*”, 15th International Multi-Conference on Systems, Signals and Devices, SSD 2018.  
2018 | conference-paper. DOI: [10.1109/SSD.2018.8570389](https://doi.org/10.1109/SSD.2018.8570389)
16. Coauthors F. Bairal, M. Zidani and others “*Deformation and Recrystallised Texture Evolution and the Followed Mechanical and Electrical Properties of Drawn and Annealed Copper Wires*”, International Journal of Engineering Research in Africa.  
2017-07 | journal-article. DOI: [10.4028/www.scientific.net/jera.31.20](https://doi.org/10.4028/www.scientific.net/jera.31.20)
17. Coauthors Adel Ouannas, Giuseppe Grassi and others “*Chaos synchronization of continuous systems via scalar signal*”, 6th International Conference on Modern Circuits and Systems Technologies (MOCASST) 2017.  
2017-05 | conference-paper. DOI: [10.1109/mocast.2017.7937629](https://doi.org/10.1109/mocast.2017.7937629)
18. Coauthors Adel Ouannas, Giuseppe Grassi and others “*Dead-beat synchronization control in discrete-time chaotic systems*”, 6th International Conference on Modern Circuits and Systems Technologies (MOCASST) 2017.  
2017-05 | conference-paper. DOI: [10.1109/mocast.2017.7937628](https://doi.org/10.1109/mocast.2017.7937628)
19. Coauthors :Adel Ouannas, Giuseppe Grassi and Zaid Odibat “*On a function projective synchronization scheme for non-identical Fractional-order chaotic (hyperchaotic) systems with different dimensions and orders*”, Optik - International Journal for Light and Electron Optics.  
2017-05 | journal-article. DOI: [10.1016/j.ijleo.2017.02.068](https://doi.org/10.1016/j.ijleo.2017.02.068)
20. Coauthors Adel Ouannas and Ahmed Taher Azar “*On Inverse Full State Hybrid Function Projective Synchronization For Continuous-time Chaotic Dynamical Systems with Arbitrary Dimensions*”, Differential Equations and Dynamical Systems.  
2017-04 | journal-article. DOI: [10.1007/s12591-017-0362-x](https://doi.org/10.1007/s12591-017-0362-x)
21. Coauthors Adel Ouannas, Xiong Wang and others “*Dynamic Analysis of Complex Synchronization Schemes between Integer Order and Fractional Order Chaotic Systems with Different Dimensions*”, Complexity.

# Curriculum Vitae

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2017 | journal-article. DOI: [10.1155/2017/4948392](https://doi.org/10.1155/2017/4948392)

22. Coauthors Adel Ouannas and Ahmed Taher Azar and others “*A new method to synchronize fractional chaotic systems with different dimensions*”, Fractional Order Control and Synchronization of Chaotic Systems. Studies in Computational Intelligence.

2017 | Book Chapter. Part of DOI: [10.1007/978-3-319-50249-6\\_20](https://doi.org/10.1007/978-3-319-50249-6_20)

23. Coauthors Adel Ouannas and Ahmed Taher Azar and others “*A study on coexistence of different types of synchronization between different dimensional fractional chaotic systems*”, Fractional Order Control and Synchronization of Chaotic Systems. Studies in Computational Intelligence

2017 | Book Chapter. DOI: [10.1007/978-3-319-50249-6\\_22](https://doi.org/10.1007/978-3-319-50249-6_22)

24. Coauthors Adel Ouannas and Ahmed Taher Azar and others “*Fractional inverse generalized chaos synchronization between different dimensional systems*”, Fractional Order Control and Synchronization of Chaotic Systems, Studies in Computational Intelligence

2017 | Book Chapter. Part of DOI: [10.1007/978-3-319-50249-6\\_18](https://doi.org/10.1007/978-3-319-50249-6_18)

25. Coauthors Adel Ouannas and Ahmed Taher Azar and others “*Generalized synchronization of different dimensional integer-order and fractional order chaotic systems*”, Fractional Order Control and Synchronization of Chaotic Systems, Studies in Computational Intelligence.

2017 | Book Chapter. Part of DOI: [10.1007/978-3-319-50249-6\\_23](https://doi.org/10.1007/978-3-319-50249-6_23).

26. Coauthors Adel Ouannas and Ahmed Taher Azar and others “*On New Fractional Inverse Matrix Projective Synchronization Schemes*”, Fractional Order Control and Synchronization of Chaotic Systems, Studies in Computational Intelligence.

2017 | Book Chapter. DOI: [10.1007/978-3-319-50249-6\\_17](https://doi.org/10.1007/978-3-319-50249-6_17)

## Ph.D. Examiner and Expert in Habilitation Promotion Committees

1. *Phd Examiner of Dr Karim DJEMMAL*(2018) , Larbi Ben M'hidi university of Oum El Bouaghi, Algeria.
2. *Phd Examiner of Dr Riad SAIDI* (2018) , Mustapha Benboulaid university of Batna 2, Algeria.
3. *Phd Examiner of Dr Fateh BOUGUERRA*(2018) , Mustapha Benboulaid university of Batna 2, Algeria.



# Curriculum Vitae

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4. *Habilitation committee Examiner of Dr Souheila GAGUI* (2020) , Larbi Ben M'hidi university of Oum El Bouaghi, Algeria.
5. *Habilitation committee Examiner of Dr Mohamed Lamine TAG* (2020) , Larbi Tebessi university of Tebessa , Algeria.
6. *Habilitation committee Expert Advisor of Dr Abid BOUDIAR* (2020) , Larbi Tebessi university of Tebessa , Algeria.
7. *Habilitation committee Expert Advisor of Dr Abdelkader HAFDHALLA* (2018) , Larbi Tebessi university of Tebessa , Algeria.
8. *Habilitation committee Expert Advisor of Dr Radia BOUKHALFA* (2018) , Larbi Tebessi university of Tebessa , Algeria
9. *Handout Expert Advisor of Dr Mourad KHECHBA*(2020) , Larbi Tebessi university of Tebessa , Algeria.
10. *Handout Expert Advisor of Dr Hamza BOUGHROURA* (2019) , Larbi Tebessi university of Tebessa , Algeria.
11. *Handout Expert Advisor of Dr Riad SAIDI* (2019) , Larbi Tebessi university of Tebessa , Algeria.

## Reviewer

A reviewer in the following international journals

1. The International Journal of Nonlinear Sciences and Numerical Simulation (Degruyter). (2018)
2. Solid State Phenomena (Trans Tech Publication). (2019)
3. Defect and Diffusion Forum (Trans Tech Publication). (2019)
4. Physic A Journal (Elsevier). (2020)

## Languages

Amazigh (Chaoui): mother tongue.

Arabic, English and French.

NB: All of my studies (B.S., M.S, Ph.D) are conducted in French language.

Oum El Bouaghi On 28 th April , 2022.

Pr .Toufik ZIAR